

Science • Animals Including Humans



Crucial Knowledge

- All living things move, grow, consume nutrients and reproduce.
- It is important for humans to eat healthily, be hygienic and exercise to stay healthy.
- The process of digestion involves breaking complex foodstuffs into simpler building blocks that can be absorbed by the body.
- The process of digestion begins with food being chewed in the mouth by the teeth and saliva added.
- Blood travels around the body transporting nutrients that have been absorbed into the bloodstream from digestion.
- Blood also absorbs oxygen from the lungs and carries it around the body which is used to power the body.
- The heart beats and pumps blood around the body.
- Blood is carried by blood vessels.
- Arteries carry blood away from the heart.
- Veins carry blood towards the heart.
- The heart returns to a resting heart rate after exercise.
- Fitter people tend to have lower resting heart rates.



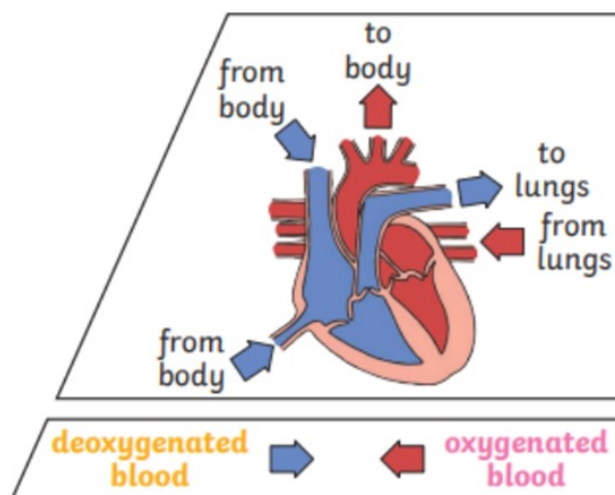
Key Vocabulary

- blood cells:** cells that circulate in the blood.
- plasma:** the colourless fluid part of blood
- platelets:** pieces of large cells found in the bone marrow that help form blood clots to slow or stop bleeding and to help wounds heal
- clotting:** when the blood congeals and sticks together
- aorta:** the major artery (blood vessel) that carries blood away from the heart to the rest of the body.
- atrium:** the upper chambers of the heart through which blood enters the ventricles.
- ventricle:** lower chambers of the heart which squirts out the blood to the body and lungs.
- circulatory system:** the body system that moves blood round the body.
- replenished:** to fill or build up again.
- pulse:** the heartbeat / throbbing created as blood is pumped around the body

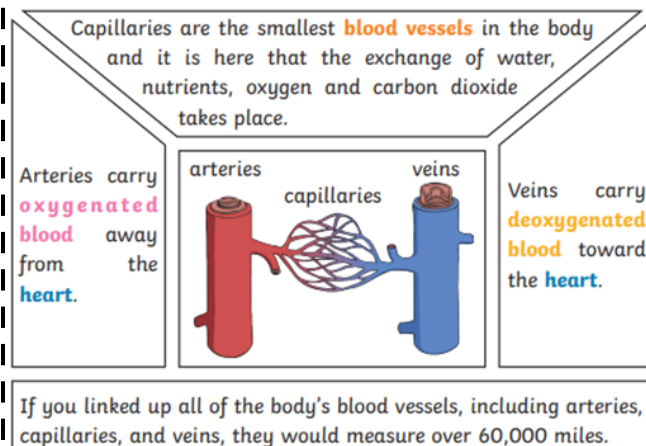


Diagrams / Images

Structure of the mammalian heart



Types of blood vessel



If you linked up all of the body's blood vessels, including arteries, capillaries, and veins, they would measure over 60,000 miles.



Important People

Christian Bernard (1922 – 2001)

was a South African cardiac surgeon who performed the world's first human-to-human heart transplant operation.



William Harvey (1578 – 1657) was the first known physician to describe the circulatory system in detail and the properties of blood being pumped around the body by the heart.

We Are Building Our Knowledge From

- Animals Including Humans (Y4)